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**PRAIRIE LAND
ELECTRIC COOPERATIVE**

NEWS



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Call 800-577-3323 to report outages and other power line issues.

POWER
to make life better

How Electric Vehicles Impact the Grid

BY KATHERINE LOVING

Last year saw a record increase in electric vehicle (EV) sales, and experts are predicting that by 2035, many major vehicle manufacturers will only produce electric models.

A 2021 study by the Department of Energy showed that increased electrification, or replacement of direct fossil fuel use with electricity, would account for a 38% increase in electricity demand by 2050 — and EVs will play a major role in this increased electrification.

The need for more electricity will have a major impact on the nation's grid, which means power supply and grid infrastructure must be carefully planned to accommodate the increased need for electricity.

EV charging presents new challenges in maintaining the electric grid. Fully charging an EV battery requires the

same amount of electricity needed to power a home during peak energy use times. However, EV charging is a concentrated pull of energy over an extended period, which can add stress to the local power grid by increasing the amount of electricity a utility has to provide. Additionally, the neighborhood transformer needs adequate capacity to handle the increased load. EV charging can shorten the lifespan of transformers by straining and overloading their capacity if they are not matched to a neighborhood's energy needs.

Electric cooperatives are currently identifying ways to manage this new pattern of electricity use, though exact strategies will vary based on each utility's unique needs. Analyzing energy

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Apply for Trips by Jan. 9

We are awarding trips to four students. This year, we are once again sponsoring two students for the Electric Cooperative Youth Tour to Washington, D.C., June 15-22, 2023, and another two students for the Cooperative Youth Leadership Camp on July 14-20, 2023, in Colorado. Each event is an outstanding opportunity for high school juniors to meet other young leaders. Call Kenzie for details at 800-577-3323.

Right: 2022 winner Erin Johnson of Kirwin takes a trip in a bucket truck during a visit to FreeState Electric Cooperative.



2022 County Tax Distribution

Prairie Land Electric paid more than **\$2.23 MILLION** in property taxes in 2022. This amount is an increase of **\$27,233.04** from taxes paid last year. The details below show the amount of taxes paid to each county.

Although your cooperative signs the check that pays for the property taxes, we realize that you, our members, actually pay the bill. We want to report where some of your money goes when you make a payment each month. A fair portion of that check goes to pay property taxes and that in turn helps the communities in our area.

2022 PROPERTY TAXES

County	2022	2021	% Change
Cheyenne	\$132,132.56	\$132,042.48	0.07%
Clay	\$5,851.48	\$6,052.42	-3.32%
Cloud	\$257,480.94	\$266,876.08	-3.52%
Decatur	\$150,417.12	\$148,443.87	1.33%
Graham	\$129,744.68	\$121,606.78	6.69%
Jewell	\$86,074.77	\$84,612.31	1.73%
Mitchell	\$61,944.57	\$62,246.54	-0.49%
Norton	\$327,823.46	\$327,577.44	0.08%
Osborne	\$60,481.38	\$61,581.46	-1.79%
Phillips	\$396,707.60	\$381,735.84	3.92%
Rawlins	\$106,508.57	\$102,433.27	3.98%
Republic	\$106,276.28	\$102,368.12	3.82%
Rooks	\$144,066.75	\$144,108.97	-0.03%
Sheridan	\$25,706.28	\$23,525.77	9.27%
Sherman	\$502.74	\$495.92	1.38%
Smith	\$149,105.32	\$146,183.45	2.00%
Thomas	\$156.36	\$153.66	1.76%
Washington	\$90,594.71	\$92,298.15	-1.85%
Totals	\$2,231,575.57	\$2,204,342.53	1.24%

PROPERTY TAXES FOR PRAIRIE LAND ARE ASSESSED BASED UPON REVENUES RATHER THAN ACTUAL PROPERTY VALUE.

How Electric Vehicles Impact the Grid *Continued from page 12A*

load patterns or identifying where and when the local grid has spikes in demand can provide electric co-ops with data on where to place higher-capacity transformers. This analysis can also provide a picture of overall energy use and patterns to help forecast energy consumption for the future. Planning system maintenance and upgrades are also part of that long-range forecasting; however, this has been recently complicated by supply-chain issues with transformers, with wait times that are upwards of one year.

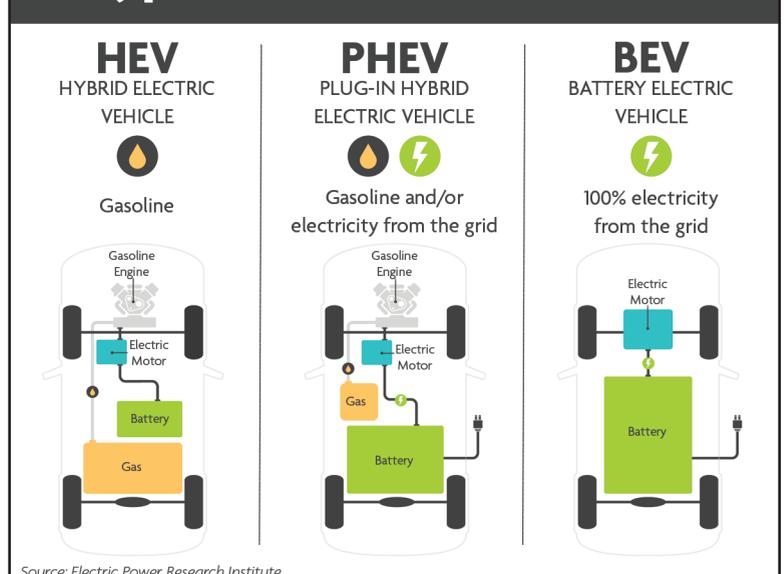
EV owners can play a role in reducing energy costs and system stress associated with charging. Check with your local electric co-op to see if they offer an EV charging rate. Typically, an EV rate incentivizes charging during the night, when electricity demand and wholesale energy rates are lower. Charging at night is also a great way to ease demand in your neighborhood, even without a special EV rate.

Another potential change on the horizon is a new energy peak time. EV drivers that plug-in to charge as soon as they return home from work would create even more electricity demand during this busy time of day. But if EV drivers use a timer to schedule charging at night, the electricity demand could be spread over a longer period to reduce stress on the grid. This would be especially beneficial for neighborhoods with multiple EV drivers.

EVs are only expected to increase in number. Electric co-ops and EV owners both have roles to play in accommodating increased demand. If you own an EV, let your electric co-op know so they can better plan energy demand for you and your neighbors.

KATHERINE LOVING writes on consumer and cooperative affairs for the National Rural Electric Cooperative Association, the national trade association representing more than 900 local electric cooperatives. From growing suburbs to remote farming communities, electric co-ops serve as engines of economic development for 42 million Americans across 56% of the nation's landscape.

Types of Electric Vehicles



Prairie Land Welcomes New Employee

NICK WITHINGTON was hired as an apprentice lineworker for the St. Francis area starting Nov. 28, 2022. After having him as an intern this past summer, we were excited to bring him back as a full-time employee.

Nick was raised in Atwood and completed his lineworker program at Manhattan Area Technical College in December 2022.

He is currently living in St. Francis and enjoys woodworking and hunting.



Nick Withington

ENERGY EFFICIENCY Tip of the Month

Did you know insulating your electric water heater could reduce standby heat loss by 25% to 45%? This could save you 7% to 16% on annual water heating costs. Insulating your electric water heater is an easy, inexpensive project that can improve energy efficiency and save you money each month. The Department of Energy rates this project level as medium difficulty, meaning most homeowners can tackle this project on their own. Visit energy.gov for project tips and additional considerations. **SOURCE: WWW.ENERGY.GOV**



Congratulations PLEC Employees!



Luke Lister
20 years

LUKE LISTER began his career as a journeyman lineworker in Concordia on Jan. 13, 2003. He became a Prairie Land employee with the Aquila, Inc. acquisition in 2007.

Luke and his wife, Candace, have five children: Abby, Bailee, Karson, Grady and Morgan. In his spare time, he enjoys CrossFit competitions, attending his children's sporting events and spending time with family.



Kade Kolman
15 years

KADE KOLMAN completed his summer internship with Prairie Land in 2007 and graduated from Manhattan Area Technical College. He was hired as an apprentice lineworker on Jan. 2, 2008, and earned his journeyman certification in 2011.

Kade and his wife, Sarah, have three children: Broen, 14; Kaydre, 12; and Sawyer, 9. In his spare time, he enjoys working on the farm, hunting and fishing.



Chance Bieker
10 years

CHANCE BIEKER began his career at Prairie Land Electric on Jan. 2, 2013 as an apprentice lineworker in the Concordia area. He had previously completed an internship over the summer of 2009. Chance earned his journeyman certification in January 2014 and was promoted to crew foreman in May 2019.

Chance and his wife, Kortney, have a five-month-old baby named Treyson. Chance enjoys, hunting, fishing and spending time with family.

Common Causes of Home Electrical Fires



An average of **346,800** home fires occur every year, according to the National Fire Protection Association (NFPA). Electrical issues (either failure or malfunction) account for 46,700 of those fires.

Common Causes

Incorrectly installed wiring; overloaded circuits or extension cords; defective or improper plugs, switches or outlets; and misuse or poor maintenance of lighting are common causes.

Warning Signs

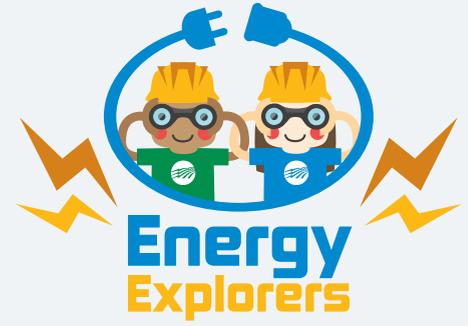
Signs that indicate possible wiring or electrical problems include flickering or dimming lights; discolored cords, outlets or switch plates; switches or outlets that are hot to the touch or emit an odor; and recurring blown fuses and tripped circuit breakers.

Prevention

Hire a qualified electrician to examine and repair electrical issues in your home. Do not take on do-it-yourself electrical projects if you are not qualified.

PLEDGE TO SAVE ENERGY

It's a new year, and that means it's time to think about how you'll make a positive impact in 2023! You can help the planet by saving energy at home and at school. Take the pledge to save energy this year by completing the form below. Post it on your refrigerator or at school to remind others about easy ways to save energy and costs while helping our environment.



I Pledge to Save Energy



Name: _____

I pledge to do my part to save energy and help our planet.

Every day, I'll do the following to save energy at home and/or at school.

My Daily Energy-Saving Plan:

1. _____

2. _____

3. _____

Need some ideas to help you get started?

Here are a few easy ways you can save energy every day.

- ▶ Turn off all lights when you leave a room.
- ▶ Unplug phone and other device chargers when they're not being used.
- ▶ Turn off running water while brushing your teeth.
- ▶ Remind family members to wash clothes in cold water.
- ▶ Turn off ceiling fans when you leave a room.